

What is claimed is:

1. A cleaning article comprising:

a non-woven, three dimensional fibrous web comprised of at least one intertangled organic fiber, the web having a first major surface;  
a plurality of organic particles having a Shore A hardness less than 80; and  
binder on at least a portion of the first major surface, the binder having a  $T_g$  not greater than  $+10^\circ\text{C}$  and binding the organic particles, at least in part, to the first major surface.

2. A cleaning article according to claim 1, wherein the web is comprised of a plurality of intertangled organic fibers.

3. A cleaning article according to claim 2, wherein the binder is present on at least a majority of the first major surface.

4. A cleaning article according to claim 2, wherein the binder is substantially co-extensive with the first major surface.

5. A cleaning article according to claim 2, wherein the binder binds at least a portion of the fibers together.

6. A cleaning article according to claim 2, wherein said organic particles have a Shore A hardness in the range from 20 to less than 80.

7. A cleaning article according to claim 2, wherein the web has a density in the range from  $0.02 \text{ g/cm}^3$  to  $0.3 \text{ g/cm}^3$ .

8. A cleaning article according to claim 2, wherein the  $T_g$  is in the range from  $0^\circ\text{C}$  to  $-70^\circ\text{C}$ .

9. A cleaning article according to claim 2, wherein the  $T_g$  is in the range from  $-10^\circ\text{C}$  to  $-70^\circ\text{C}$ .

10. A cleaning article according to claim 2, wherein the  $T_g$  is in the range from  $-20^\circ\text{C}$  to  $-30^\circ\text{C}$ .

11. A cleaning article according to claim 1, wherein said organic particles have a Shore A hardness in the range from 20 to less than 80.

12. A cleaning article according to claim 1, wherein said organic particles have an aspect ratio in the range from about 1:1 to about 2:1.

13. A cleaning article comprising:

a non-woven, three dimensional fibrous web comprised of at least one intertangled organic fiber, the web having a first major surface;

a plurality of organic particles having a hardness of at least one of a Shore A hardness in the range from 80 to 100 or a Shore D hardness in the range from 30 to 50; and

binder on at least a portion of the first major surface, the binder having a  $T_g$  not greater than  $0^\circ\text{C}$  and binding the organic particles, at least in part, to the first major surface.

14. A cleaning article according to claim 13, wherein the web is comprised of a plurality of intertangled organic fibers.

15. A cleaning article according to claim 14, wherein the binder is present on at least a majority of the first major surface.

16. A cleaning article according to claim 14, wherein the binder is substantially co-extensive with the first major surface.

17. A cleaning article according to claim 14, wherein the binder binds at least a portion of the fibers together.

18. A cleaning article according to claim 14, wherein the web has a density in the range from  $0.02\text{ g/cm}^3$  to  $0.3\text{ g/cm}^3$ .

19. A cleaning article according to claim 14, wherein the  $T_g$  is in the range from  $0^\circ\text{C}$  to  $-70^\circ\text{C}$ .

20. A cleaning article according to claim 14, wherein the  $T_g$  is in the range from  $-10^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ .

21. A cleaning article according to claim 14, wherein the  $T_g$  is in the range from  $-20^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$ .

22. A cleaning article according to claim 13, wherein said organic particles have an aspect ratio in the range from about 1:1 to about 2:1.

23. A cleaning article comprising:  
a foam pad having a first major surface;  
a plurality of organic particles having a Shore A hardness less than 80; and  
binder on at least a portion of the first major surface, the binder having a  $T_g$  not greater than  $+10^{\circ}\text{C}$  and binding the organic particles, at least in part, to the first major surface.

24. A cleaning article according to claim 23, wherein the binder is present on at least a majority of the first major surface.

25. A cleaning article according to claim 23, wherein said organic particles have a Shore A hardness in the range from 20 to less than 80.

26. A cleaning article according to claim 23, wherein the binder is substantially co-extensive with the first major surface.

27. A cleaning article according to claim 23, wherein the  $T_g$  is in the range from 0°C to -70°C.

28. A cleaning article according to claim 23, wherein the  $T_g$  is in the range from -10°C to -70°C.

29. A cleaning article according to claim 23, wherein the  $T_g$  is in the range from -20°C to -30°C.

30. A cleaning article according to claim 23, wherein said organic particles have an aspect ratio in the range from about 1:1 to about 2:1.

31. A cleaning article comprising:

a foam pad having a first major surface;

a plurality of organic particles having a hardness of at least one of a Shore A hardness in the range from 80 to 100 or a Shore D hardness in the range from 30 to 50; and

binder on at least a portion of the first major surface, the binder having a  $T_g$  not greater than 0°C and binding the organic particles, at least in part, to the first major surface.

32. A cleaning article according to claim 31, wherein the binder is present on at least a majority of the first major surface.

33. A cleaning article according to claim 31, wherein the binder is substantially co-extensive with the first major surface.

34. A cleaning article according to claim 31, wherein the  $T_g$  is in the range from 0°C to -70°C.

35. A cleaning article according to claim 31, wherein the  $T_g$  is in the range from -10°C to -70°C.

36. A cleaning article according to claim 31, wherein the  $T_g$  is in the range from -20°C to -30°C.

37. A cleaning article according to claim 31, wherein said organic particles have an aspect ratio in the range from about 1:1 to about 2:1.

38. A method of cleaning a soiled exterior surface of an aircraft, the method comprising:  
providing a cleaning article comprising a non-woven, three-dimensional fibrous web, at least 8 mm thick, comprised of at least one intertangled organic fiber, the web having a first major surface and binder on at least a portion of the first major surface, the binder having a  $T_g$  not greater than 0°C, said cleaning article further comprising a work surface comprising said binder, and said work surface having a wet kinetic coefficient of friction in the range from 0.3 to 0.9;

frictionally engaging at least a portion of the work surface of the cleaning article with the soiled exterior surface of the aircraft; and

inducing relative motion between the cleaning article and the soiled exterior surface to at least partially dislodge soil from the soiled exterior surface.

39. A method according to claim 38, wherein the web is comprised of a plurality of intertangled organic fibers.

40. A method according to claim 39, wherein the cleaning article further comprises a plurality of organic particles having a Shore A hardness less than 100, and wherein the binder bonds the organic particles, at least in part, to the first major surface.

41. A method according to claim 39, wherein the cleaning article further comprises a plurality of organic particles having Shore A hardness less than 80, and wherein the binder bonds the organic particles, at least in part, to the first major surface.

42. A method according to claim 39, wherein the cleaning article further comprises a plurality of organic particles having a hardness of at least one of a Shore A hardness in the range from 80 to 100 or a Shore D hardness in the range from 30 to 50, and wherein the binder bonds the organic particles, at least in part, to the first major surface.

43. A method according to claim 39, wherein the cleaning article further comprises a plurality of organic particles having a Shore A hardness in the range from 20 to 80, and wherein the binder bonds the organic particles, at least in part, to the first major surface.

44. A method according to claim 39 further comprising providing a cleaner on the soiled exterior surface to aid in dislodging soil from the soil exterior surface.

45. A method of cleaning a soiled exterior surface of an aircraft, the method comprising:

providing a cleaning article comprising a foam pad, the foam pad having a first major surface and binder on at least a portion of the first major surface, the binder having a  $T_g$  not greater than  $0^{\circ}\text{C}$ , said cleaning article further comprising a work surface comprising said binder, and said work surface having a wet kinetic coefficient of friction in the range from 0.3 to 0.9;

frictionally engaging at least a portion of the work surface of the cleaning article with the soiled exterior surface of the aircraft; and

inducing relative motion between the cleaning article and the soiled exterior surface to at least partially dislodge soil from the soiled exterior surface.

46. A method according to claim 45, wherein the cleaning article further comprises a plurality of organic particles having a hardness of at least one of a Shore A hardness in the range from 80 to 100 or a Shore D hardness in the range from 30 to 50, and wherein the binder bonds the organic particles, at least in part, to the first major surface.



47. A method according to claim 45 further comprising providing a cleaner on the soiled exterior surface to aid in dislodging soil from the soil exterior surface.